

Docket No.: **4715-008****PATENT****AMENDMENTS TO THE CLAIMS:**

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1, 2, 6-9, 43, 47 and 52-58. (Cancelled)

59. (New) A method for accelerating flowering in a plant, comprising modifying in said plant an endogenous level of at least one compound selected from the group consisting of 12-hydroxyjasmonic acid, sulfate ester of 12-hydroxyjasmonic acid, 11-hydroxyjasmonic acid, sulfate ester of 11-hydroxyjasmonic acid, and mixtures thereof, wherein the endogenous level of the at least one compound is altered by expression of a sulfotransferase encoded by a gene of SEQ ID NO: 1 or a functional homologue having at least 80% similarity to SEQ ID NO:1.

60. (New) The method of claim 59, wherein the sulfotransferase has an amino acid sequence of SEQ ID NO: 3 or a functional homologue having at least 80% similarity to SEQ ID NO:3.

61. (New) The method of claim 59, wherein said plant is transgenic.

62. (New) A method for producing a transgenic plant which flowers early, said method comprising the steps of:

a) introducing into a cell of a suitable plant an exogenous nucleic acid molecule comprising a sequence of nucleotides antisense to a nucleic acid sequence coding for an amino acid sequence of SEQ ID NO:3 or a functional homologue having at least 80% similarity to SEQ ID NO:3, encoding a plant hydroxyjasmonic acid sulfotransferase:

b) regenerating a transgenic plant from the cell; and

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c) growing said transgenic plant for a time and under conditions sufficient to inhibit expression of the hydroxyjasmonic acid sulfotransferase.

63. (New) The method of claim 62, wherein the hydroxyjasmonic acid sulfotransferase is a 11- or a 12- hydroxyjasmonic acid sulfotransferase.

64. (New) The method of claim 62, further comprising the step of applying to a plant at least one flowering inducing compounds selected from the group consisting of 12- hydroxyjasmonic acid and 11- hydroxyjasmonic acid.

65. (New) The method of claim 62, further comprising the step of applying to said plant at least one inhibitor of a sulfotransferase having an amino acid sequence with at least 80% similarity with SEQ ID NO:3.

66. (New) The method of claim 62, further comprising the step of increasing in said plant the endogenous level of an hydroxylase which hydroxylates jasmonic acid or methyljasmonic acid or both.

67. (New) The method of claim 62, further comprising the step of inhibiting in said plant the expression of at least one gene selected from the group consisting of SEQ ID NO:1 or a functional homologue having at least 80% similarity to SEQ ID NO.:1.

68. (New) The method of claim 67, wherein said exogenous sequence is expressed under the control of a constitutive or an inducible promoter.

69. (New) A plant genetically modified to flower early wherein the plant is obtained by the method of claim 62.

70. (New) The plant of claim 69, which is cauliflower.

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- 71. (New) The plant of claim 69, which is broccoli.
- 72. (New) The plant of claim 69, which is a horticultural plant.
- 73. (New) A cut flower from the genetically modified plant of claim 69.